

REMARKS

STATUS OF THE CLAIMS

In accordance with the foregoing, claims 4, 14 and 24 have been amended. New claim 26 has been added. Claims 4, 14, 24, 25 and 26 are pending and under consideration.

No new matter is being presented, and approval of the amended claims is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §112

On page 2, item 3, of the Action, claims 4, 14, 24 and 25 are rejected because the Examiner asserts that "rearranging components contained in the common device" is not described in the specification in such a way as to convey to one skilled in the art that the inventor had possession of the claimed invention at the time the application was filed.

Applicant respectfully disagrees with the Examiner's understanding of the present specification. Applicant notes that page 40, line 2, to page 42, line 18, of the present specification (and the accompanying Figs. 39-42), explain in detail how components contained in the common device are rearranged.

As an example, as shown in Fig. 42, the server 2 may include three hard disk drives hd1, hd2 and hd3. If the frequency of access to the hard disk drive hd3 is lower than a predetermined frequency, the hard disk drive hd3 remains subjected to the power-saving control. If the frequency of access to the files F1 and F2 of the hard disk drives hd1 and hd2 are higher than the predetermined frequency, the file F2 of hd2 is moved into hd1. The hard disk drive hd1 is then removed from a group of drives subjected to the power-saving control, and hd2 is subjected to the power-saving control. (See also page 42, lines 2-14, of the present specification).

In this manner, the frequently access files can be gathered in one drive, and the other drives can be stopped, thereby saving power. (See page 42, lines 15-18, of the present specification).

As a result, Applicant respectfully submits that the specification describes the subject matter in such a way as to reasonably convey to one skilled in the art that the inventor had possession of the invention at the time of filing. Thus, the rejections of independent claims 4, 14 and 24, as well as dependent claim 25, should be withdrawn.

REJECTIONS OF CLAIMS 4, 14, 24 AND 25 UNDER 35 U.S.C. §102(b) AS BEING
ANTICIPATED BY DENICOLA (U.S. PATENT NO. 5,666,538)

On pages 2-4, item 5, of the Action, the Examiner maintains the rejection of claims 4, 14, 24 and 25 as being anticipated by previously-cited DeNicola.

In response to the arguments that DeNicola fails to teach or suggest that by detecting the accessed state of the common device by the electronic apparatus, components (e.g., file components) contained in the common device are rearranged so as to control the operational state of the common device, the Examiner cites DeNicola column 3, lines 59-63.

The cited portion of DeNicola discusses determining if any of the disk drives is being accessed significantly more frequently than others and redistributing the data contained within the disk drive to other disk drives to assure that the disk drive is accessed less frequently. That is, DeNicola teaches a method of reducing wear on disk drives by spreading access evenly over all the disk drives. Further, the power load is distributed when the load increases.

In contrast, some embodiments of the present invention are characterized by rearranging components contained in the common device, to gather together components accessed a predetermined number of times, so as to control an operational state of the common device based on the currently detected accessed state. Thus, according to some embodiments of the present invention, the frequently access files, for example, can be gathered in one drive, and the other drives can be stopped, thereby conserving power.

In other words, some embodiments of the present invention are provided to overcome the conventional problem of decrease of the access speed for highly accessed files and increase of the power load for low-accessed files. Under the situation where frequently accessed files are gathered together, while less-accessed files are placed in a separate HDD in a fixed manner, the access speed to frequently accessed files falls if power saving is often performed. On the other hand, for the less-accessed files, power load increases when the access frequency increases because the power supply is maintained in the ON state.

Independent claims 4, 14 and 24 are amended herein to clarify that the components are rearranged by gathering together frequently accessed components (i.e., components accessed a predetermined number of times).

Therefore, it is respectfully submitted that independent claims 4, 14 and 24 patentably distinguish over the prior art for at least the reasons provided above.

Claim 25 depends from claim 24 and inherits the patentability thereof. Thus, it is respectfully submitted that claim 25 also patentably distinguishes over the prior art.

NEW INDEPENDENT CLAIM 26

New claim 26 recites rearranging components contained in the common device, to gather together components accessed a predetermined number of time, so as to control an operational state of the common device based on a currently detected accessed state. Therefore, for at least the reasons provided herein, it is respectfully submitted that new claim 26 patentably distinguishes over the prior art.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Michael P. Stanley
Michael P. Stanley
Registration No. 58,523

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501